

PATENT  
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 09/769,604	Confirmation No.: 4397
Applicant : Stephen M. Howard et al.	
Filed : January 25, 2001	
T.C./A.U. : 2157	
Examiner : Osman, Ramy M.	
Docket No. : EMC-002PUS	
Customer No. : 51576	

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sirs:

**DECLARATION UNDER 37 CFR §1.131**

1. We, Stephen M. Howard, William Alton Gill, Robert Alan Boudrie, and Glenn R. Sachar, are co-inventors of a U.S. Patent Application entitled "Data Backup System Having a Flexible Restore Architecture," now pending before the U. S. Patent Office as Application No. 09/769,604.
2. Prior to December 22, 2000, the invention claimed in U. S. Patent Application No. 09/769,604 was actually reduced to practice. The subject matter claimed in the '604 application, which was reduced to practice prior to December 22, 2000, includes subject matter set forth in claim 1, for example, which requires:  
A method of restoring backed up data, comprising:  
retrieving, by a data backup storage system, a list of objects that are restorable by a client having a backup/restore module and a logical volume manager to communicate with a storage system, the backup storage system having a storage system interface to communicate with the storage system, a backup storage unit to store backed up data, and a network interface to communicate with the client;

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displaying the list of restorable objects for browsing by a user, wherein the restorable objects are located on a plurality of physical storage devices;

generating a first list of restorable objects marked for restoration by the user, wherein each of the restorable objects is associated with a particular library, wherein the library supports at least one catalog containing information for the backed up data including media type and metadata;

submitting the first list of marked restorable objects to the backup storage system for restoration for the client;

submitting a second list of marked restorable objects to the backup storage system; and  
executing, by the backup storage system, a restoration of the submitted first and second lists of marked restorable objects via a remote procedure call such that first and second restore submissions can be made prior to restore execution.

Functionality for the claimed subject matter was contained in software modules forming a part of a software release prior to December 22, 2000, as described more fully below and in the attached Exhibits.

3. Prior to December 22, 2000, the claimed invention was contained in a software release for the EDM product of EMC Corporation. Exhibit A shows a copy of a portion of an E-mail providing a General Announcement (GA) that the software release is the shipping version sent out prior to December 22, 2000.
4. Exhibit B shows a date-redacted listing of source file names for the claimed invention dated prior to December 22, 2000 using the CLEARCASE tool, which can be used to provide source file and date information.
5. Exhibit C is a screen shot showing the software release containing the claimed invention, the date (redacted) prior to December 22, 2000, and source files that comprise the executable file edmrestoreengpd containing claimed subject matter.

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6. Exhibit D shows the first page of a date-redacted source code listing for a module supporting the claimed invention. We possess a complete source code listing, which existed prior to December 22, 2000.

7. All of the acts referred to herein took place in the United States.

8. All of the statements made herein are of my own knowledge and are true, these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under § 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application and any patent issuing thereon, or any patent to which this verified statement is applied.

June 5, 2007  
Date of Signature

By: Stephen M. Howard  
Stephen M. Howard

June 4 2007  
Date of Signature

By: William Alton Gill  
William Alton Gill

June 5, 2007  
Date of Signature

By: Robert Alan Boudrie  
Robert Alan Boudrie

June 5, 2007  
Date of Signature

By: Glenn R. Sachar  
Glenn R. Sachar

EXHIBIT A

Message

To: [REDACTED]

x

From: [REDACTED]

Subject: EDM 4.5 has gone to RTO

This morning the EDM 4.5 SMT - [REDACTED], representing Customer

Service - has voted without objection to enter RTO, effective immediately.

The RTO to GA process is expected to kick off immediately.

Questions to me.

GA NOTICE

-----Original Message-----

From: [REDACTED]

Sent: [REDACTED]

To: milswe SWE

Subject: Can you spell GA?

That's right, 4.5 has GA'd and is now the official shipping version of our beloved product. Though this fact may cause some of you to do the ol' Homer Simpson 'DOOOHHHH!', for everyone else I think this is fantastic news. It certainly is for me :-).

So now, how do I find ways of acknowledging this accomplishment without resorting to time worn cliches? Answer is, I don't. Ready .....

Truth is this was a remarkable effort by legions of hard-working, dedicated professionals over more months that we care to remember. This release went from warm weather, to hot, to cool, to cold and back to warm (if you count today) while we nurtured it to fruition. During this time there are now more gray hairs, more kids in the extended SWE family and more sleep deprivation

5/15/2007

EXHIBIT B

From:  
Sent:  
To:  
Cc:  
Subject:

RE: EMC-00-070 EMC-002 Data Backup System Having A Flexible Restore Architecture

Below is a listing from the clearcase tool that displays dates and source file name

Thanks,

```
jlupisel create version
"RSLinitfin.c@@/main/sumac/buckeye/coconut/10" (EDM_4.5.0_PATCH_18, EDM_4.5.0_PATCH_17,
EDM_4.5.0_PATCH_16, COCONUT_REBASE, EDM_4.5.0_PATCH_13, ...)
"OSGsw32402"
```

```
cflynn create version
"RSLinitfin.c@@/main/sumac/buckeye/coconut/9"
"removing submit files"
```

```
gsachar create version
"RSLinitfin.c@@/main/sumac/buckeye/coconut/8" (CALYPSO_MERGE, FASTRAX_MERGE, FIR_BASE,
CALYPSO_BASE, TFTOOLKIT_REBASE, ...)
"Initialize status in init_plugins"
```

```
gsachar create version
"RSLinitfin.c@@/main/sumac/buckeye/coconut/7" (EBCISHILOH_BASE)
"Make RSTPI function names global data; minor cosmetic cleanup"
```

```
cflynn create version
"RSLinitfin.c@@/main/sumac/buckeye/coconut/6" (SCSM_REBASE, WIN2K_BASE,
SPTOOL_BASE)
"restore cli checkin to coconut"
```

```
gsachar create version
"RSLinitfin.c@@/main/sumac/buckeye/coconut/5" (SAUGUS_BASE)
"Remove improper free of rc_cmd_context; Allow missing cure_plugin dir"
```

```
gsachar create version
"RSLinitfin.c@@/main/sumac/buckeye/coconut/4"
"remove improper free calls in RSTSL_Finish"
```

```
gsachar create version
"RSLinitfin.c@@/main/sumac/buckeye/coconut/3"
"Add support for multiple plug-in libraries"
```

```
gsachar create version  
"RSLinitfin.c@@/main/sumac/buckeye/coconut/2"  
"Remove include of RSLsup_csm.h"  
"
```

```
gsachar create version  
"RSLinitfin.c@@/main/sumac/buckeye/coconut/1"  
"Set rc_human_uidname from caller's input"  
"
```

```
gsachar create version  
"RSLinitfin.c@@/main/sumac/buckeye/coconut/0"
```

```
gsachar create branch  
"RSLinitfin.c@@/main/sumac/buckeye/coconut"  
"Branch created by auto-merge"
```

EXHIBIT C

```

crh1001 1535 pod
/rmsvc/cradm /rmsvc/epma 5.0 /lpcbeadm
crh1001 1512 11
total 112
drwxr-xr-x 1 bgadm staff 26037 [REDACTED] pkatmp
drwxr-xr-x 1 bgadm staff 190 [REDACTED] pkatinfo
drwxr-xr-x 11 bgadm staff 1024 [REDACTED] roinc
drwxr-xr-x 2 bgadm staff 1024 [REDACTED] mntail
crh1001 1512 cat pkatinfo
rmc /lpcbeadm
NAME EMC Data Manager Backup Server
VERSION 1.0.0.0 [REDACTED] scm_encrypt.exe
ARCH amd64
CATEGORY apach
BASEDIR /usr/tmp
CLASS none
BETAUP cilipnara2023557
crh1001 1535
crh1001 1535
crh1001 1512 cd /etc
crh1001 1535 11
total 80
drwxr-xr-x 2 bgadm staff 1023 [REDACTED] service
drwxr-xr-x 4 bgadm staff 80 [REDACTED] bin
drwxr-xr-x 1 bgadm staff 1024 [REDACTED] lib
drwxr-xr-x 3 bgadm staff 1023 [REDACTED] etc/crui
drwxr-xr-x 2 bgadm staff 80 [REDACTED] install
drwxr-xr-x 3 bgadm staff 80 [REDACTED] gui
drwxr-xr-x 4 bgadm staff 80 [REDACTED] etc
drwxr-xr-x 6 bgadm staff 1024 [REDACTED] lib
drwxr-xr-x 5 bgadm staff 1024 [REDACTED] bin
crh1001 1535 cd service
crh1001 1535 11
total 11648
drwxr-xr-x 1 bgadm staff 894977 [REDACTED] shrcstoreadm
crh1001 1535

```

EXHIBIT D

```

/*****
**
** File Name: RSLmarkunm.c
**
** Copyright (c) [REDACTED] by EMC Corporation.
**
** Purpose:
**     This module contains the Restore Service Library functions to mark and
**     unmark objects for restore.
**
** Table of Contents:
** -----
**     Service Library Functions:
**         RSTSL_MarkObject
**         RSTSL_UnmarkObject
**
**     Internal Functions:
**     int    allowed_to_mark(struct recover_context *rcx, tree_node *tnp,
**         char *name_if_known, rbcatt_elem_t *clmp)
**     static int    mtx(struct mcat_applyfunc_args *ctxp)
**     static int    umtx(struct mcat_applyfunc_args *ctxp)
**     static int    mark_tree(struct recover_context *rcx, tree_node *tnp,
**         char *name_if_known)
**     static int    unmark_tree(struct recover_context *rcx, tree_node *tnp)
**
**
** Compile-Time Options:
**     This section must list any compile time definitions
**     which will affect this header.
**
**
** NOTE: Part of this module is adapted from:
** server/libs/recover/grandfathered/cmd_markunmark.c
** It contains mainly support routines needed by the mark and unmark
** API functions.
**
*****/

/* The following provides an RCS id in the binary that can be located
** with the what(1) utility. The intent is to keep this short.
**/

#ifndef lint
static char RCS_id [] = "$RCSfile$ "
"$Revision$ "

```